



*The National Cyber League - Where Cybersecurity is a Passion*

## 2016 NCL Fall Season Scouting Report

Dear 404 Society UIS,

Congratulations on a great 2016 NCL Fall Season!

### National Cyber League (NCL)

The NCL was founded in May 2011 to provide an ongoing virtual training ground for collegiate students to develop, practice, and validate their cybersecurity skills. Using lab exercises designed around industry-recognized performance-based exam objectives and aligned with individual and team games, the NCL is a first-of-its-kind ongoing experiment in learning and gaming using next-generation high-fidelity simulation environments. Learn more about the NCL at [www.nationalcyberleague.org](http://www.nationalcyberleague.org). If you are interested in validating the information in this report, explore the 2016 Fall season at [www.nationalcyberleague.org/fall-season](http://www.nationalcyberleague.org/fall-season) or inquire at [info@nationalcyberleague.org](mailto:info@nationalcyberleague.org).

### 2016 NCL Fall Season

The 2016 NCL Fall season was designed to develop and validate player knowledge and skills in preparation for further learning, career readiness, industry certifications, and other cybersecurity competitions. Hosted lab exercises in the NCL Gymnasiums were made available to all players and coaches and aligned to the games. Both the lab exercises and games were designed around performance-based exam objectives of the CompTIA Security+™ and EC-Council Certified Ethical Hacker (CEH) certifications.

The 2016 Fall season began with the Preseason round to group players into one of three competition brackets based on skill level: Gold (top 15% of all players nationally - 293 players), Silver (the next 35% of all players nationally - 683 players) or Bronze (the next 50% of all players nationally - 976 players). Players who did not participate in the Preseason were not ranked. This made the Regular season more fun and engaging by grouping players with similar knowledge and skill levels and providing them with appropriate challenges.

At the beginning of the 2016 Fall season, 2,760 students/players (up from 2,153 in 2015) and 352 faculty/coaches (up from 298 in 2015) from 238 two- and four-year schools in 47 U.S. states (up from 41 in 2015) registered to play.

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There were two Capture the Flag (CTF) Regular Season games optimized for individuals: November 5 and November 19, which were conducted in real-time, during the same time window, for students across the country.

There was one virtual National Championship Postseason game, optimized for organized team play, November 28 through December 5. The event included 155 teams from 103 college/universities in 31 states.

## NCL Scouting Report

What follows is a customized NCL Scouting Report of your performance in both the Pre- and Regular season games. We hope you find it to be valuable in both confirming the skills you demonstrated competencies in, as well as identifying areas for improvement. In addition, the NCL Scouting Report can be used as part of any job application, as it provides an external validation of skills as demonstrated in competitive game play based on industry-recognized certification performance-based exam objectives.

The following definitions apply to your performance across a range of games, optimized for individuals:

- **Bracket:** Gold, Silver, or Bronze; based on the Preseason Round
- **Bracket Rank:** overall nationally, by Bracket
- **National Rank:** overall place with respect to all players, across all Brackets
- **Total Score:** total combined flag points; the higher the score, the higher the ranking
- **Total Flag Captures:** the combined number of successful flag captures/submissions
- **Total Flag Attempts:** the combined number of flags submitted to the Cyber Skyline Platform
- **Accuracy:** percentage of flag submissions that were correct. Formula: Total Flag Captures divided by Total Flag Attempts

## NCL Fall 2016 Postseason

The top team for NCL Fall 2016 Postseason captured 163 flags out of 163 total flags, scoring 6480 points out of 6545 total points, and had an accuracy of 94.22%. On average, teams in this round captured 92 flags, 2257 points, and had an accuracy of 58.11%.

Bracket	Bracket Rank	National Rank	Total Score	Total Flag Captures	Total Flag Attempts	Accuracy
Gold	25	49	2,635	123	179	68.72%

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## Individual Competencies

The following tables show rank by Bracket and overall, based on the following competencies measured in the Regular season games:

1. Cryptography
2. Enumeration & Exploitation
3. Log Analysis
4. Network Traffic Analysis
5. Open Source Intelligence
6. Password Cracking
7. Scanning & Recon
8. Web Application Exploitation
9. Wireless Access

### Cryptography

The top team for Cryptography captured 16 flags out of 16 total flags, scoring 755 points out of 790 total points, and had an accuracy of 100.00%. On average, teams captured 8 flags, scored 273 points, and had an accuracy of 60.52%.

Bracket	Bracket Rank	National Rank	Total Score	Total Flag Captures	Total Flag Attempts	Accuracy
Gold	30	81	120	7	7	100.00%

### Enumeration & Exploitation

The top team for Enumeration & Exploitation captured 10 flags out of 10 total flags, scoring 715 points out of 715 total points, and had an accuracy of 100.00%. On average, teams captured 2 flags, scored 106 points, and had an accuracy of 45.08%.

Bracket	Bracket Rank	National Rank	Total Score	Total Flag Captures	Total Flag Attempts	Accuracy
Gold	18	43	75	1	1	100.00%

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## Log Analysis

The top team for Log Analysis captured 14 flags out of 14 total flags, scoring 240 points out of 240 total points, and had an accuracy of 100.00%. On average, teams captured 10 flags, scored 161 points, and had an accuracy of 54.48%.

Bracket	Bracket Rank	National Rank	Total Score	Total Flag Captures	Total Flag Attempts	Accuracy
Gold	7	15	240	14	18	77.78%

## Network Traffic Analysis

The top team for Network Traffic Analysis captured 28 flags out of 28 total flags, scoring 550 points out of 550 total points, and had an accuracy of 90.32%. On average, teams captured 18 flags, scored 316 points, and had an accuracy of 55.48%.

Bracket	Bracket Rank	National Rank	Total Score	Total Flag Captures	Total Flag Attempts	Accuracy
Gold	12	31	475	27	40	67.50%

## Open Source Intelligence

The top team for Open Source Intelligence captured 25 flags out of 25 total flags, scoring 330 points out of 330 total points, and had an accuracy of 96.15%. On average, teams captured 21 flags, scored 253 points, and had an accuracy of 48.11%.

Bracket	Bracket Rank	National Rank	Total Score	Total Flag Captures	Total Flag Attempts	Accuracy
Gold	18	48	310	24	41	58.54%

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## Password Cracking

The top team for Password Cracking captured 30 flags out of 30 total flags, scoring 1555 points out of 1585 total points, and had an accuracy of 100.00%. On average, teams captured 17 flags, scored 574 points, and had an accuracy of 90.75%.

Bracket	Bracket Rank	National Rank	Total Score	Total Flag Captures	Total Flag Attempts	Accuracy
Gold	26	54	710	23	24	95.83%

## Scanning & Recon

The top team for Scanning & Recon captured 15 flags out of 15 total flags, scoring 465 points out of 465 total points, and had an accuracy of 100.00%. On average, teams captured 6 flags, scored 143 points, and had an accuracy of 50.35%.

Bracket	Bracket Rank	National Rank	Total Score	Total Flag Captures	Total Flag Attempts	Accuracy
Gold	23	51	155	9	17	52.94%

## Web Application Exploitation

The top team for Web Application Exploitation captured 15 flags out of 15 total flags, scoring 1320 points out of 1320 total points, and had an accuracy of 88.24%. On average, teams captured 3 flags, scored 111 points, and had an accuracy of 45.38%.

Bracket	Bracket Rank	National Rank	Total Score	Total Flag Captures	Total Flag Attempts	Accuracy
Gold	9	22	275	10	19	52.63%

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## Wireless Access

The top team for Wireless Access captured 9 flags out of 9 total flags, scoring 400 points out of 400 total points, and had an accuracy of 100.00%. On average, teams captured 6 flags, scored 184 points, and had an accuracy of 75.88%.

Bracket	Bracket Rank	National Rank	Total Score	Total Flag Captures	Total Flag Attempts	Accuracy
Gold	33	86	125	7	11	63.64%

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Thank you for your participation in the 2016 NCL Fall Postseason! We hope you will continue to develop your knowledge and skills and make meaningful contributions as part of the Information Security workforce!

Casey W. O'Brien  
NCL Commissioner

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